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10/042,678	01/11/2002	Harold L. Schafer	Techpro # 1-2	7412

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ARTHUR R. EGLINGTON, ESQ.
113 Cross Creek Drive RD # 5
Pottsville, PA 17901

EXAMINER

COOLEY, CHARLES E

ART UNIT	PAPER NUMBER
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1723

DATE MAILED: 07/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/042,678	Applicant(s) SCHAFFER ET AL.	
	Examiner Charles E. Cooley	Art Unit 1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-8 are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 January 2002 and 7 APR 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input checked="" type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This application remains assigned to Technology Center 1700, Art Unit 1723 and the following will apply for this application:

Please direct all written correspondence with the correct application serial number for this application to Art Unit 1723.

Telephone inquiries regarding this application should be directed to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197 or to the Examiner at (571) 272-1139. All official facsimile should be transmitted to (703) 872-9306.

2. As the PTO continues to move towards a fully electronic environment, the office will phase-in its E-Patent Reference program. This program: (1) provides downloading capability of the U.S. patents and U.S. patent application publications cited in Office actions via the E-Patent Reference feature of the Office's PAIR system; and (2) ceases mailing paper copies of U.S. patents and U.S. patent application publications with office actions except for citations made during the international stage of an international application under PCT.

Effective June 2004, paper copies of cited U.S. patents and U.S. patent application publications will cease to be mailed to applicants with Office actions from this Technology Center. Paper copies of foreign patents and non-patent literature will continue to be included with office actions.

The U.S. patents and patent application publications cited in office actions are available for download via the Office's PAIR system. As an alternate source, all U.S.

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patents and patent application publications are available on the USPTO web site (www.uspto.gov), from the Office of Public Records and from commercial sources.

Inquiries about the use of the Office's PAIR system should be referred to the Electronic Business Center (EBC) at <http://www.uspto.gov/ebc/index.html> or 1-866-217-9197.

Requests to restart a period for response due to a missing U.S. patent or patent application publications will not be granted.

Election/Restriction

3. This application contains claim 8 drawn to an invention nonelected with traverse. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Drawings

4. The proposed drawing correction and/or the proposed substitute sheets of drawings, filed on 7 APR 2004 have been approved by the Examiner but note the following objections due to the amendment filed 21 JUN 2004.

5. The drawings are objected to under 37 CFR § 1.83(a) since the drawings must show every feature of the invention specified in the claims. Therefore, the following features must be shown or the features canceled from the claims. No new matter should be entered.

a. the subject matter of amended claim 2 - note the now claimed lip seals do not appear to possess a squared cross section as seen in Fig. 9. Also note the new matter rejection below on this issue.

b. the subject matter of amended claim 5 - note the specification at page 10, last full paragraph states that this feature is "not seen". Claim 5 is objected to as containing allowable subject matter for the reasons advanced below. Accordingly, this feature must be shown to maintain the allowable status of this claim.

6. Applicant should verify that (1) all reference characters in the drawings are described in the detailed description portion of the specification and (2) all reference characters mentioned in the specification are included in the appropriate drawing Figure(s) as required by 37 CFR 1.84(p)(5).

7. Note the attached PTO-948 form.

8. Applicant is required to submit the drawing changes on replacement sheets as outlined below:

37 CFR 1.121 (d) requires that any drawing changes be submitted in compliance with 37 CFR 1.84 on replacement sheets as an attachment to an amendment document. An accompanying detailed explanation of all of the changes should be provided on a separate sheet in the drawing amendments or remarks section of the amendment document. A marked-up copy of one or more of the figures being amended, with annotations, may also be included to provide further explanation of the changes made. The marked-up version must be labeled as "Annotated marked-up Drawings." Any amended replacement drawing sheet should include all of the figures appearing on

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the immediate prior version of the sheet, even though only one figure may be amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per Sec. 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. No further drawing submission of the amended drawing figure(s) by applicant would be required, unless applicant is so notified.

Specification

9. The substitute specification is approved and has been entered but note the following objections thereto:
10. The substitute specification (clean copy) is objected to because of the following informalities:
 - a. Page 6, line 15 contains an improper strikethrough after "collar-like".
 - b. Page 10 contains several occurrences of improper strikethroughs.A clean copy of the substitute specification must not contain any underlining or strikethroughs.

c. Page 10, line 18: replace "house" with --housing--.

Appropriate correction is required.

11. The Abstract of the Disclosure is objected to because:

a. the inclusion of legal phraseology such as "means" and "said" in the abstract is improper.

Correction is required. See MPEP § 608.01(b). No substitute abstract can be found in the responses filed subsequent to the first office action.

12. The amended title is acceptable.

13. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 C.F.R. § 1.75(d)(1) and M.P.E.P. § 608.01(I).

Correction of the following is required:

a. The subject matter of claim 3 (the recited chemical structure) lacks antecedent basis in the specification.

Claim Objections

14. Claims are objected to because:

a. Claim 1 contains two ending periods.

b. Claim 7, lines 2-3: delete one occurrence of "the".

Appropriate correction is required.

Claim Rejections - 35 U.S.C. § 112, first paragraph

15. The following is a quotation of the first paragraph of 35 U.S.C. 112:

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The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

The specification is objected to under 35 U.S.C. § 112, first paragraph, as the specification, as originally filed, does not provide support for the invention as is now claimed.

The limitation in amended claim 2 regarding the now claimed lip seals having a substantially squared cross section is not supported by the originally filed disclosure nor by Fig. 9 which is considered to best show this aspect of the invention. Claim 2 therefore involves new matter and should be cancelled.

16. Claim 2 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim Rejections - 35 U.S.C. § 112, second paragraph

17. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

18. Claims 4-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4: the distinction between "a visco seal" in line 2 of amended claim 4 and the elements of claim 1 is wholly unclear.

Claim 5, line 4: it appears "abutting" should be changed to --adjacent-- to agree with page 10, last full paragraph and to clarify the structural cooperation.

Claim 6, line 2: "the oil seal retainer" lacks antecedent basis.

The claims are being treated on the merits to the extent they are understood and considered definite.

Claim Rejections - 35 USC § 103

19. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

20. Claims 1, 4, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art of claim 1 in view of Japan 55-82857.

Claim 1 is still considered to be in the format specified by 37 CFR 1.75(e) which reads as follows:

37 CFR 1.75

(e) Where the nature of the case admits, as in the case of an improvement, any independent claim should contain in the following order:

- (1) A preamble comprising a general description of all the elements or steps of the claimed combination which are conventional or known,
- (2) A phrase such as "wherein the improvement comprises," and
- (3) Those elements, steps, and/or relationships which constitute that portion of the claimed combination which the applicant considers as the new or improved portion.

Accordingly, the language in claim 1 appearing prior to "the improvement being in the pneumatic housing component which comprises" is deemed "conventional or known" pursuant to 37 CFR 1.75(e) and therefore admitted prior art. The admitted prior art does not disclose the elements (a), (b), (c), or (d) of claim 1 or the subject matter of claims 4, 6, and 7. Japan 55-82857 discloses a sealing arrangement for a driven shaft 1 disposed in a pneumatic housing 2. An annular channel 14 is disposed substantially centrally of the inner periphery of the pneumatic housing 2 being defined by the inner periphery of the pneumatic housing 2 (proximate 17) and the opposing outer periphery of the visco seal 5, 6; a pair of lip seal packing components 13A, 13B having the annular channel 14 therebetween (Figs. 3-5); the lip seal packing components 13A, 13B positioned spaced apart on the opposing surfaces of a peripheral ridge provided on the inner periphery of the pneumatic housing 2 as seen in Figs. 3-5; an elongate fluid conduit 15, 16 providing pneumatic air to the annular channel 14; a means for supply of air to the conduit (Fig. 4 and see the abstract); the inner periphery of the housing 2 receiving the lip seals 13A, 13B as seen in Figures 3-5; the conduit having a round port 15 connected to the air supply means and a radial portion (proximate 16 in Fig. 3) which feed air to the annular channel 14 during operation. It would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have provided the admitted prior art arrangement with a sealing arrangement as disclosed by

Japan 55-82857 for the purposes of controlling the seal pressure and friction heat of the seal arrangement about a shaft element (per the abstract).

21. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's admitted prior art of claim 1 in view of Japan 55-82857 as applied to claim 1 above, and further in view of Sytsma (US 4,863,293).

Applicant's admitted prior art of claim 1 in view of Johnston (US 4,270,762) does not disclose the recited material of the seal set forth in claim 3. The patent to Sytsma (US 4,863,293) discloses a seal made of the material recited in claim 3 such as VITON. It would have been obvious to one having ordinary skill in the art, at the time applicant's invention was made, to have formed the seal components in Applicant's admitted prior art of claim 1 in view of Johnston (US 4,270,762) from a material such as VITON to provide a seal which has the desirable characteristics of flexibility, memory, resiliency, high temperature resistance, toughness, tear, and chemical resistance (col. 3, lines 30-36).

Allowable Subject Matter

22. Claim 5 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

23. The following is a statement of reasons for the indication of allowable subject matter:

The prior does not show the pneumatic housing having an outer periphery provided with a truncated segment presenting a planar surface that abuts the pneumatic housing of an adjacent main rotor.

Response to Amendment

24. Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection necessitated by the extensive amendments to the claims.

Conclusion

25. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The cited art shows means for supplying a liquid or fluid to opposed seals of a sealing arrangement disposed about a movable member such as a shaft, some of the sealing arrangements teaching the use of lip seals. For example, see Figs. 2-3 of Pietsch et al. '026 which are considered to show elements (a) through (d) of amended claim 1.

26. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Cooley whose telephone number is (571) 272-1139. The examiner can normally be reached on Mon-Fri. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in cursive script, appearing to read "Charles", followed by a long, horizontal, wavy line.

Charles E. Cooley
Primary Examiner
Art Unit 1723

12 JULY 2004